

* The Scan Line Check Digit is calculated on fields 1 – 10 using a Modulus 11 (Mod 11) Luhn's Check Digit Routine.

APPENDIX A: Name Conversion Table

Table used to convert the first four characters of the last name to numeric format.

48 = 0	65 = A	75 = K	85 = U
49 = 1	66 = B	76 = L	86 = V
50 = 2	67 = C	77 = M	87 = W
51 = 3	68 = D	78 = N	88 = X
52 = 4	69 = E	79 = O	89 = Y
53 = 5	70 = F	80 = P	90 = Z
54 = 6	71 = G	81 = Q	
55 = 7	72 = H	82 = R	
56 = 8	73 = I	83 = S	
57 = 9	74 = J	84 = T	

32 = space	38 = &
33 = !	39 = ‘
34 = “	42 = *
35 = #	43 = +
36 = \$	45 = -
37 = %	63 = ?

Note: An undetermined value is equal to 32

Examples:

SMITH	83777384
DOE	68796932
O'REILLY	79398269

APPENDIX B: Modulus 11 (Mod 11) Luhns

The calculation of the final digit is done by Modulus 11 (Mod 11) Luhns. The calculation is performed using scanline characters 1-57 of the scanline. Multiply the digits in the field by the

weights (.....,4,3,2,9,8,7,6,5,4,3,2), applying the weights right-to-left from the weight table to

the number being tested. No weight is applied to the check digit, and it is not used in the calculation. Add the resulting products by summing the products.

Scanline Example:

486804225533330815051231040000002500422123456404083777384

$$4 \times 2 = 8$$

$$8 \times 9 = 72$$

$$6 \times 8 = 48$$

$$8 \times 7 = 56$$

$$0 \times 6 = 0$$

$$4 \times 5 = 20$$

$$2 \times 4 = 8$$

$$2 \times 3 = 6$$

$$5 \times 2 = 10$$

$$5 \times 9 = 45$$

$$3 \times 8 = 24$$

$$3 \times 7 = 21$$

$$3 \times 6 = 18$$

$$3 \times 5 = 15$$

$$0 \times 4 = 0$$

$$8 \times 3 = 24$$

$$1 \times 2 = 2$$

$$5 \times 9 = 45$$

$$0 \times 8 = 0$$

$$5 \times 7 = 35$$

$$1 \times 6 = 6$$

$$2 \times 5 = 10$$

$$3 \times 4 = 12$$

$$1 \times 3 = 3$$

$$0 \times 2 = 0$$

$$4 \times 9 = 36$$

$$0 \times 8 = 0$$

$$0 \times 7 = 0$$

$$0 \times 6 = 0$$

$$0 \times 5 = 0$$

$$0 \times 4 = 0$$

$$0 \times 3 = 0$$

$$2 \times 2 = 4$$

$$5 \times 9 = 45$$

$$0 \times 8 = 0$$

$$0 \times 7 = 0$$

$$4 \times 6 = 24$$

$$2 \times 5 = 10$$

$$2 \times 4 = 8$$

$$1 \times 3 = 3$$

$$2 \times 2 = 4$$

$$3 \times 9 = 27$$

$$4 \times 8 = 32$$

$$5 \times 7 = 35$$

$$6 \times 6 = 36$$

$$4 \times 5 = 20$$

$$0 \times 4 = 0$$

$$4 \times 3 = 12$$

$$0 \times 2 = 0$$

$$8 \times 9 = 72$$

$$3 \times 8 = 24$$

$$7 \times 7 = 49$$

$$7 \times 6 = 42$$

$$7 \times 5 = 35$$

$$3 \times 4 = 12$$

$$8 \times 3 = 24$$

$$4 \times 2 = 8$$

Divide SUM by 11:

$$1050/11 = 95 \text{ with a remainder of } 5$$

NOTE: If the remainder is equal to zero or one the check digit is zero else subtract remainder from 11 for the check digit.

THE CHECK DIGIT IS SIX

Scanline becomes:

4868042255333308150512310400000025004221234564040837773846